



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/602,642

06/25/2003

Masayoshi Shimizu

826.1549C

1036

21171

7590

04/06/2006

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

NGUYEN, MADELEINE ANH VINH

ART UNIT

PAPER NUMBER

2625

DATE MAILED: 04/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/602,642

Applicant(s)

SHIMIZU ET AL

Examiner

Madeleine AV Nguyen

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/06/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 06, 2006 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2, 3, 6 recite the limitation "the target color gamut" in line 7, 7 and 4 respectively.

There is insufficient antecedent basis for this limitation in the claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohga (US Patent No. 5,712,925).

Concerning claims 2, 3, Ohga discloses a device driver of a second device (output device 11) for outputting colors exhibited by a first device (input device 1) as colors which can exhibited by the second device, comprising a color conversion table (col. 9, lines 31-37) in which color data values generated using a color data mapping method comprising determining whether color data before mapping is in a predetermined area (fidelity color reproduction area or area in the mapping boundary, Figs. 1, 4) in the vicinity of a color gamut of the second device (device color reproduction area) and mapping the color data to be mapped using a first color gamut mapping method when the color data is within the predetermined area of the target color gamut (Figs. 2, 4; col. 6, lines 36-38) and using a second color gamut mapping method when the color data is outside the predetermined area of the target color gamut (Figs. 2, 4; col. 6, lines 32-35; col. 7, line 40 – col. 8, line 63).

It is noted that Ohga teaches that the invention can be also applied to another construction such that the computer 13 forms data regarding a lookup table (LUT) for making the input color signals correspond to the data after completion of the mapping and transmits such data to the image processing apparatus 101 and an LUT is formed in the mapping memory (col. 9, lines 31-38).

Ohga does not directly teach the first and second device gamut conversion methods. Instead, Ohga teaches the first and second gamut mapping methods. However, it was well known in the prior art that conversion and mapping are equivalent to each other. It would have been obvious to one skilled in the art at the time the invention was made to consider the first and second mapping methods in Ohga equivalent to the first and second device gamut conversion methods in the claims since Ohga teaches in the Background of the Invention, “The invention

relates to image processing method and apparatus for converting the color space of image data in accordance with a color reproduction area of an image output apparatus” while in the Detailed Description of the Preferred Embodiments, Ohga uses the word “mapping” instead of “conversion”. Thus, “conversion” and “mapping” are considered equivalent for Ohga.

Concerning claim 4, Ohga discloses a color data mapping apparatus (Fig. 7 or 10) for mapping color data to color data inside a target color gamut comprising a computer determining whether color data before conversion is in a predetermined area (fidelity color reproduction area or area in the mapping boundary, Figs. 1, 4) in the vicinity of the target color gamut (device color reproduction area) and mapping the color data to be mapped using a first color gamut mapping method when the color data is within the predetermined area of the target color gamut (Figs. 2, 4; col. 6, lines 36-38) and using a second color gamut mapping method when the color data is outside the predetermined area of the target color gamut (Figs. 2, 4; col. 6, lines 32-35; col. 7, line 40 – col. 8, line 63).

Ohga does not directly teach the first and second device gamut conversion methods. Instead, Ohga teaches the first and second gamut mapping methods. However, it was well known in the prior art that conversion and mapping are equivalent to each other. It would have been obvious to one skilled in the art at the time the invention was made to consider the first and second mapping methods in Ohga equivalent to the first and second device gamut conversion methods in the claims since Ohga teaches in the Background of the Invention, “The invention relates to image processing method and apparatus for converting the color space of image data in accordance with a color reproduction area of an image output apparatus” while in the Detailed

Art Unit: 2626

Description of the Preferred Embodiments, Ohga uses the word “mapping” instead of “conversion”. Thus, “conversion” and “mapping” are considered equivalent for Ohga.

Claim 1 is method claim of apparatus claim 4. Claim 1 is rejected for the same rationales set forth for claim 4.

Concerning claim 5, Ohga discloses a computer-readable storage recording a program for causing a computer (13, Fig.10) to executed a process as discussed in claims 1 and 4 above.

Concerning claim 6, Ohga discloses a method comprising the steps of obtaining color data; and mapping the color data using a first color gamut mapping method when the color data is in a predetermined area (device color reproduction area) defined outside the target color gamut (fidelity color reproduction area, Figs.1, 4), and using a second color gamut mapping method when the color data is outside the predetermined area and outside the target color gamut (Figs.1, 2, 4; col. 6, lines 32-35; col. 4, line 30 – col. 5, line 67; col. 6, line 31 – col. 8, line 63).

Allowable Subject Matter

6. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Claim 7 is allowable over the prior art of record because the Examiner found neither prior art cited in its entirety, nor based on the prior art, found any motivation to combine any of the said prior art which teaches a method as claimed in claim 6 wherein the first color gamut conversion

Art Unit: 2626

method comprises a nearest boundary point method and the second color gamut conversion method comprises a chord clipping method.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Ohkubo (US Patent No. 6,229,915) discloses a method of converting data of a first colorimetric system to data of a second colorimetric system including a mapping of out of boundary data.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Madeleine AV Nguyen whose telephone number is 571 272-7466. The examiner can normally be reached on Monday, Tuesday, Thursday 9:30-6:00.

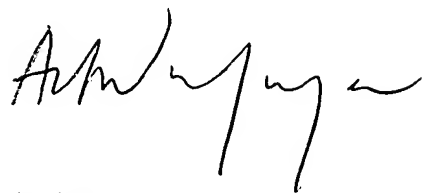
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A. Williams can be reached on 571 272-7471. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/602,642

Page 7

Art Unit: 2626

A handwritten signature in black ink, appearing to read 'Madeleine AV Nguyen', with a stylized flourish at the end.

Madeleine AV Nguyen
Primary Examiner
Art Unit 2626

3/24/06